IN THE CLAIMS

Please amend claims 1, 8, 10, 12, 16, 19-21, 23-26 and 52, cancel claims 22, 35, 37 and 53, and add new claims 58-67.

This listing of claims will replace all prior version and listings of claims in the application.

Listing of Claims

1. (Currently amended) A method of treating an individual who has cancer that comprises cancer cells that have a high rate of aerobic glycolysis, the method comprising the steps of:

identifying said cancer as a cancer that comprises cancer cells that have a high rate of aerobic glycolysis, and subsequently

administering to said individual a therapeutically effective amount of a composition selected from the group consisting of: an ATP citrate lyase inhibitor, and a tricarboxylate transporter inhibitor.

2. (Original) The method of claim 1 wherein said cancer is determined to be a cancer that comprises cancer cells that have a high rate of aerobic glycolysis by PET imaging.

3. (Original) The method of claim 1 wherein said cancer is determined to be a cancer that comprises cancer cells that have a high rate of aerobic glycolysis by PET imaging using ^{18}fluoro-deoxyglucose.

4. (Previously presented) The method of claim 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than

50% of cells in an *in vitro* apoptosis assay at a concentration of less than 1 mM.

5. (Previously presented) The method of claim 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 0.1 mM.

6. (Previously presented) The method of claim 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 50 μM.

7. (Previously presented) The method of claim 1 wherein said cancer comprises cancer cells that are not dependent on endogenously synthesized fatty acid.

8. (Currently amended) The method of claim 1 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is ~~selected from the group consisting of compounds having a structure defined by one of the formulae or examples set forth in U.S. Patent No. 5,447,954 and~~ (-) hydroxycitrate.

9. (Previously presented) The method of claim 1 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is SB-204990 shown in Figure 4.

10. (Currently amended) A method of treating an individual identified as having cancer comprising cancer cells that have a high rate of aerobic glycolysis, wherein said cancer comprises cancer cells that have a high rate of aerobic glycolysis and are not dependent on endogenously synthesized fatty acid, said method comprising the ~~step~~ steps of:

identifying said cancer as a cancer that comprises cancer cells that have a high rate of aerobic glycolysis, and subsequently

administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor.

11. (Canceled)

12. (Currently amended) The method of claim ~~11~~ 10 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging.

13. (Original) The method of claim 12 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging using ^{18}fluoro-deoxyglucose.

14. (Previously presented) The method of claim 10 wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of a different anti-cancer compound.

15. (Previously presented) The method of claim 10 wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of anti-cancer radiation therapy.

16. (Previously presented) A method of treating an individual identified as having cancer that comprises cancer cells that have a high rate of aerobic glycolysis, the method comprising ~~a step selected from the group consisting~~ the steps of:

identifying said cancer as a cancer that comprises cancer cells that have a high rate of aerobic glycolysis, and subsequently

administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor~~; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 1 mM;~~ and~~,~~

~~administering to said individual~~ a therapeutically effective amount of a tricarboxylate transporter inhibitor.

17. (Previously presented) The method of claim 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 0.1 mM.

18. (Previously presented) The method of claim 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an in vitro apoptosis assay at a concentration of less than 50 μM.

19. (Currently amended) The method of claims 16 ~~comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor,~~ wherein said cancer comprises cells that are not dependent on endogenously synthesized fatty acid.

20. (Currently amended) The method of claim 16 ~~comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor,~~ wherein ATP citrate lyase inhibitor is ~~selected from the group consisting of:~~ (-) hydroxycitrate. ~~and compounds having a structure defined by one of the formulae or examples set forth in U.S. Patent No. 5,447,954.~~

21. (Currently amended) The method of claim 16 ~~comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor,~~ wherein said ATP citrate lyase inhibitor is SB-204990 shown in Figure 4.

22. (Canceled)

23. (Currently amended) The method of claim ~~22~~ 16 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging.

24. (Currently amended) The method of claim ~~22~~ 16 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging using ^{18}fluoro-deoxyglucose.

25. Currently amended) The method of claim 16 ~~wherein said ATP citrate lyase inhibitor is administered in conjunction with~~ further comprising administration of a different anti-cancer compound.

26. (Currently amended) The method of claim 16 ~~wherein said ATP citrate lyase inhibitor is administered in conjunction with~~ further comprising administration of anti-cancer radiation therapy.

27-35. (Canceled)

36. (Previously presented) The method of claim 16 comprising the step of administering to said individual a therapeutically effective amount of a tricarboxylate transporter inhibitor, wherein said tricarboxylate transporter inhibitor is selected from the group consisting of: 1,2,3-benzenetricarboxylate, isocitrate, malate, phosphoenolpyruvate, n-butylmalonate, sulfhydryl reagents, diethyl pyrocarbonate, 2,3-butanedione, phenylglyoxal, pyridoxal, 5-phosphate dicarboxylates, succinate, malate, oxaloacetate, tricarboxylates isocitrate, tricarballylate and palmitoyl-CoA.

37-48. (Canceled)

49. (Previously presented) The method of claim 1 comprising the step of administering to said individual a therapeutically effective amount of a tricarboxylate transporter

inhibitor; wherein said tricarboxylate transporter inhibitor is selected from the group consisting of: 1,2,3-benzenetricarboxylate, isocitrate, malate, phosphoenolpyruvate, n-butylmalonate, sulfhydryl reagents, diethyl pyrocarbonate, 2,3-butanedione, phenylglyoxal, pyridoxal, 5-phosphate dicarboxylates, succinate, malate, oxaloacetate, tricarboxylates isocitrate, tricarballylate and palmitoyl-CoA.

50. (Previously presented) The method of claim 1 comprising the step of further administering to said individual a different anti-cancer compound.

51. (Previously presented) The method of claim 1 comprising the step of further administering to said individual anti-cancer radiation therapy.

52. (Currently amended) A method of treating an individual who has been identified as having cancer that comprises cancer cells that have a high rate of aerobic glycolysis, the method comprising the steps of:

identifying said cancer as a cancer that comprises cancer cells that have a high rate of aerobic glycolysis, and subsequently

administering to said individual a therapeutically effective amount of a compound which inhibits the expression of ATP citrate lyase or tricarboxylate transporter.

53-57. (Canceled)

58. (New) The method of claim 52 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging.

59. (New) The method of claim 52 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging using ^{18}fluoro-deoxyglucose.

60. (New) The method of claim 52 wherein said cancer comprises cancer cells that are not dependent on endogenously synthesized fatty acid.

61. (New) The method of claim 52 wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of a different anti-cancer compound.

62. (New) The method of claim 52 wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of anti-cancer radiation therapy.

63. (New) The method of claim 52 wherein said cancer is a glioma.

64. (New) The method of claim 1 wherein said cancer is a glioma.

65. (New) The method of claim 10 wherein said cancer is a glioma.

66. (New) The method of claim 16 wherein said cancer is a glioma.

67. (New) The method of claim 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an in vitro apoptosis assay at a concentration of less than 1 mM.